

**In the Claims**

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

1.-25. (Cancelled)

26. (New) A method for stimulating hematopoietic cells in vitro comprising:  
culturing the hematopoietic cells in the absence of exogenous cytokines and exogenous stromal cells and in the presence of an amount of a dipeptidylpeptidase type IV (DP IV) inhibitor sufficient to stimulate the hematopoietic cells.

27. (New) The method of claim 26, wherein the hematopoietic cells are hematopoietic stem cells, early progenitor cells, or hematopoietic precursor cells.

28. (New) The method of claim 26, wherein the hematopoietic cells are umbilical cord blood cells or bone marrow cells.

29. (New) The method of claim 26, wherein the DP IV inhibitor is a Lys-boroPro monomer, a Pro-boroPro monomer, a Val-boroPro monomer or a Lys-boroPro conjugate.

30. (New) The method of claim 26, wherein the DP IV inhibitor is an immobilized DP IV inhibitor.

31. (New) The method of claim 30, wherein the immobilized DP IV inhibitor comprises the DP IV inhibitor attached to an immobilization structure that is a tissue culture vessel.

32. (New) The method of claim 30, wherein the immobilized DP IV inhibitor comprises the DP IV inhibitor attached to an immobilization structure that is a particle.

33. (New) The method of claim 26, further comprising harvesting and administering the stimulated hematopoietic cells to a subject in need thereof.

34. (New) The method of claim 33, wherein the stimulated hematopoietic cells are autologous to the subject.

35. (New) The method of claim 33, wherein the subject undergoes chemotherapy or radiation therapy and the hematopoietic cells are harvested from the subject prior to chemotherapy or radiation therapy and the stimulated hematopoietic cells are administered to the subject after chemotherapy or radiation therapy.